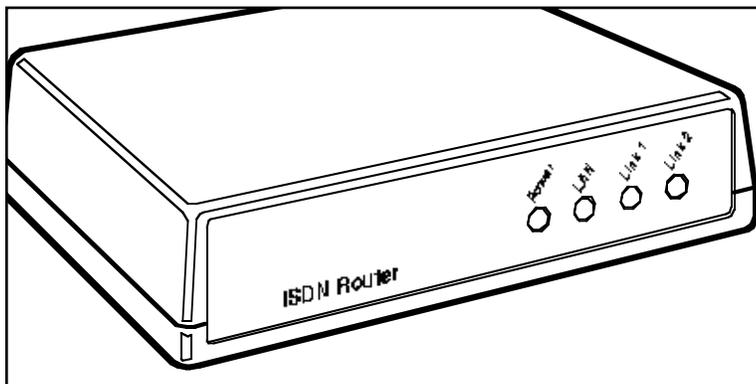




BLACK BOX[®]

NETWORK SERVICES

SERIES 500 BRANCH OFFICE ISDN ROUTER



Use ISDN to give multiple users fast, economical access to your central LAN or to the Internet—perfect for small offices.

Key Features

- ▶ **Connects an unlimited number of users to a remote central LAN or to the Internet across an ISDN line.**
- ▶ **Routes IP and IPX concurrently, bridges all other protocols.**
- ▶ **Supports PPP for full-featured Internet access.**
- ▶ **Multipoint operation.**
- ▶ **Can be set to drop a data channel in order to send or receive voice or fax calls.**
- ▶ **Includes NetSAFE Firewall.**
- ▶ **Supports Telnet and SNMP management.**
- ▶ **600% data compression!**

Why use a slow modem or a budget-gouging leased line to link your network locations? With Series 500 Branch Office ISDN Routers, you can route LAN traffic between your sites using speedy, relatively inexpensive ISDN connections. And if you choose a Voice Interface model, you can route voice and fax traffic as well!

After you install a Series 500 ISDN Router at a location, you'll be able to connect an unlimited number of users to a LAN at another site or to the Internet. And once they're logged on, your staff will be able to remotely access and transfer files, send print jobs, and send and receive e-mail.

The Routers communicate on a standard Basic Rate Interface (BRI) ISDN line, which includes two 64-kbps bearer (B) channels and (for link overhead only) a 16-kbps delta (D) channel, all digital.

The S/T-interface models of the router can be attached to the ISDN network through terminal adapters, if you already have

these in place. You can attach the U-interface models directly to the ISDN line.

Want to streamline even further? Put your analog voice devices on the ISDN line too. Voice-interface models of the Router have extra ports to which you can attach regular analog voice phones and fax machines. The Router will direct incoming calls to the appropriate device.

The Router even performs transparent compression and spoofing to cut your on-line ISDN charges to the bone. Using Stac[®] LZS technology to compress your data, the Router can transmit it six times faster than if it were

uncompressed. And, when the Router detects that a B channel is idle, it automatically suspends any call in progress on that channel, "spoofs" the line, and automatically re-establishes the connection when the call becomes active again.

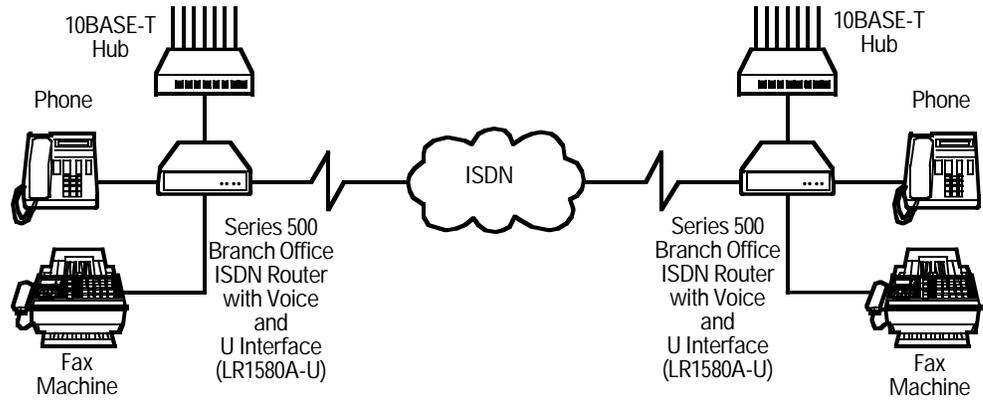
The Series 500 Branch Office ISDN Router boasts the industry's most complete management system. It supports Simple Network Management Protocol (SNMP), an easy-to-use menu-based protocol for local or remote Telnet management. It also has a NetWizard Web-based interface that can be accessed from any Java-enabled Web browser.

Typical Applications

Connect the thirteen network users in your Little Town satellite office to the 300-node LAN in your Big City headquarters over a single ISDN line.

Turn your breakfast nook into a home office: 1. Install ISDN and a Series 500 Branch Office ISDN Router. 2. Attach your computer, phone, and fax to the Router. 3. Telecommute. (Or surf.)

When you use a voice-interface model of the Router, a single ISDN link can be your all-purpose pipeline for voice, fax, and LAN-to-LAN data traffic.



Specifications

Compliance: Main unit: FCC Part 15 Subpart J Class A; NI-1 (North America), NET3 CE mark (Europe); 115-VAC power supply: UL* and CSA; 230-VAC power supply: TUV and VDE

Standard: IEEE 802.3 Ethernet

Interfaces: LAN: 10BASE-T MDI and MDI-X ports; WAN: 56/64-kbps ISDN BRI: "-U" models: U interface (for North America); "-ST" models: S/T interface (for Europe and elsewhere); Voice-interface models only: Modular analog telco, DTMF dialing, ringer equivalence of 5 B (total)

Protocols: LAN: IP, IPX™; WAN: PPP-MP

Filtering: Up to 14,000 packets per second

Data Rate: LAN: 10 mbps; WAN: 128 kbps aggregate

Protocols:

Routing: IPX™, RIP, SAP, IP, ARP, ICMP;
Bridging: IEEE 802.3 Ethernet-transparent MAC-layer bridging, 802.1D-STP;
Security: NetSAFE Firewall, PAP, CHAP;
Wide-Area: HDLC, PPP/MP, IPCP, IPXCP, BCP, CCP;
Spoofing: TCP session keepalives, IP RIP broadcasts, IPX watchdogs, IPX SAP advertisements, IPX RIP broadcasts, IPX serializations

WAN Services:

ISDN switched/permanent channels (for example, German Monopole 64S and Japanese Super Digital)

WAN Data Compression: Stac® LZS, increases throughput by 600%

Bandwidth Management: Transparent link activation, time-of-day activation, IP destination address, IP and IPX session traffic, IP and IPX protocol spoofing

Network Management: SNMP, in-band management (Telnet), out-of-band management (built-in console)

Internet Security: Included NetSAFE Firewall

Indicators: (4) Front-mounted LEDs: Power, LAN, (WAN) Link 1, (WAN) Link 2

Connectors: All models:
Console: (1) RJ-45 female;
LAN: (2) RJ-45 female:
(1) straight-pinned (MDI),
(1) cross-pinned (MDI-X);
WAN: (1) RJ-45 female;
Voice-interface models only:
(2) RJ-11 female

Temperature Tolerance: 2 to 50°C (35 to 122°F)

Humidity Tolerance: 20 to 80%, noncondensing

Maximum Altitude: 3048 m (10,000 ft.)

Power: Wallmount power supply:
Input: 115 VAC, 60 Hz
(230 VAC, 50 Hz available);
Output: 12 VDC, 1 Amp

Size: 4H x 15.5W x 11D cm (1.6"H x 6.1"W x 4.3"D)

Weight: Net: 0.3 kg (0.7 lb.); Shipping: 0.7 kg(1.5 lb.)

Fido Protection™: 1 year

Technically Speaking

- With the Series 500 Branch Office ISDN Router, you can use the two ISDN B channels in either of two ways, depending on your application. If multipoint connectivity is required in your office, the device can route data calls to two separate locations. Or, if you need bandwidth-on-demand, the Router will combine the two B channels when additional throughput is required.
- When the Router is configured to give voice the highest priority, it will perform "data-call preemption" (drop one of the in-use data channels to service voice or fax calls).
- The Router is state-of-the-art secure. PAP, CHAP and XID security help eliminate the possibility of unauthorized network access. Both password and address must be confirmed before connections are allowed. And, for even more security, the router comes with NetSAFE Firewall, which lets your users do business as usual but prevents intruders from entering your office's network through the Internet.
- If you already own one of our popular 500 Series ISDN Routers, but would like to use IPX or spoofing or to connect more users than that model allows, you can purchase our Upgrade Kit (our product code LR1500A-UPG) to turn it into a fully functional ISDN Branch Router.

Ordering Information

ITEM	CODE
Series 500 Branch Office ISDN Routers:	
With S/T Interface.....	LR1560A-ST
With U Interface	LR1560A-U
With S/T and Voice Interfaces.....	LR1580A-ST
With U and Voice Interfaces	LR1580A-U
Kit for Upgrading 500 Series ISDN Routers (LR1500A-US-R2) to Branch Office Routers.....	
	LR1500A-UPG
RJ-45 (8-Wire) Modular Cable, 2.1-m (7-ft.), Straight-Pinned.....	
	EL08MS-07